



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

RBEM711V1000101-1  
Job Sheet 173775



Part No: RBEM711V1000101-1

Job Qty: 4 ea

Part Name: Cowling Plate



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 3/7/18

Job Tracking No:

Due Date: 3/30/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG RBEM711V1000101 REV 2 IPP REV A 18.03.05 NEW ISSUE FK VERIFY DP

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off    |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|-------------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |             |
| 90    | Start up Operation | 2 Ea  | 3/29/18    | 3/29/18  | 0.00      | 0.00    | Start Up Waterjet     |           | du 18/03/13 |
| 110   | Waterjet           | 2 pcs | 3/30/18    | 3/30/18  | 0.00      | 0.17    | Waterjet 2 OMAX       |           | du 18/03/13 |
| 120   | QC                 | 2 pcs | 3/30/18    | 3/30/18  | 0.00      | 0.00    | QC2 Waterjet-4        |           | du 18/03/13 |
| 140   | QC                 | 2 pcs | 3/30/18    | 3/30/18  | 0.00      | 0.00    | QC8-1                 |           | 18-04-06    |
| 150   | Outsource          | 2 pcs | 3/30/18    | 3/30/18  |           |         | ATC001-VC C.R.0002-VC |           | AT 18/04/18 |
| 160   | Packaging          | 2 pcs | 3/30/18    | 3/30/18  | 0.00      | 0.00    | Packaging2            |           | AT 18/04/18 |
| 170   | QC                 | 2 pcs | 3/30/18    | 3/30/18  | 0.00      | 0.00    | QC6                   |           | 38          |
| 180   | Packaging          | 2 pcs | 3/30/18    | 3/30/18  | 0.00      | 0.00    | Packaging3-1          |           | 18-04-19    |
| 190   | QC21-SA            | 2 Ea  | 3/30/18    | 3/30/18  | 0.00      | 0.00    | QC21                  |           | GA 135      |

Part Op 110 - 1-Cut as per Dwg Dwg Rev: 2 Prog Rev: 2 2-Deburr if necessary (Red Barn folder)

Descriptions: 120 - Engrave T/N & "rear cowling" & "front cowling" using Marktronic engraver as per DWG.

150 - Issue P/O to Groupe Altech: P/O \_\_\_\_\_ -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required

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### Job BOM

| Part / Item    | Component Name                     | Quantity           | Operation             | Container |
|----------------|------------------------------------|--------------------|-----------------------|-----------|
| MT-HRS-P-0.375 | Hot Rolled Steel Plate 0.375 (44W) | .3640 sf (.182 ea) | 90-Start up Operation |           |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | MT-HRS-P-0.375 | 0        | 41        | 0         |

### Part Specifications

Specifications could not be found.

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

### WORK ORDER NON-CONFORMANCE / UPDATE



Work Order update only

| Work Order:                      |         | DISPOSITION           |  | AGAINST DEPARTMENT/PROCESS |                                              |
|----------------------------------|---------|-----------------------|--|----------------------------|----------------------------------------------|
| Part No.                         |         | Rework                |  | Cross tube                 |                                              |
| NCR No.                          |         | Scrap                 |  | Small r                    |                                              |
|                                  |         | Use-as-is             |  | Water Jet                  |                                              |
|                                  |         | Suspected Unapproved  |  | Prod. Eng. Coord.          |                                              |
|                                  |         |                       |  | Rec/Store/Packaging        |                                              |
|                                  |         |                       |  | Supplier                   |                                              |
| Date :                           | Step #: |                       |  |                            |                                              |
| Description Work Order Deviation |         |                       |  |                            | MRB (QSI042) Approval                        |
|                                  |         |                       |  |                            | Completed By                                 |
|                                  |         |                       |  |                            | Lead hand / Supervisor Approval Verification |
|                                  |         |                       |  |                            | QC / QA Coordinator Approval                 |
| Root Cause                       |         |                       |  |                            |                                              |
| Environment                      |         | No Re-verification    |  | Grain                      |                                              |
| Design                           |         | Operator              |  | Weld                       |                                              |
| Doc/Data                         |         | Offset/Setup          |  | Wrong Stock Pulled         |                                              |
| Equip/Tooling                    |         | Supplier              |  | Out of Sequence            |                                              |
| Handling/Pre                     |         | Training              |  | Off-set                    |                                              |
| Material                         |         | Use for Testing       |  | Mislabeled                 |                                              |
| Internal Transport               |         | Poor Information      |  | Fit/Function               |                                              |
| Tribal Knowledge                 |         | Rushing               |  | Misaligned/off center      |                                              |
| LOA                              |         | Product Improvement   |  | Positioned Wrong           |                                              |
| Substation                       |         | Process Improvement   |  | Outside Dimensions         |                                              |
| Past Expiry Date                 |         | Manufacturing Process |  | Over/Under tolerance       |                                              |
| Misidentified                    |         | Past Due              |  | Part Incorrect             |                                              |
|                                  |         | OTHER :               |  | Part Lost/Missing          |                                              |
|                                  |         |                       |  | Part Moved                 |                                              |
|                                  |         |                       |  | Drawing                    |                                              |
|                                  |         |                       |  | Finish                     |                                              |
|                                  |         |                       |  | Misread                    |                                              |
|                                  |         |                       |  | Turning Sequence           |                                              |





DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

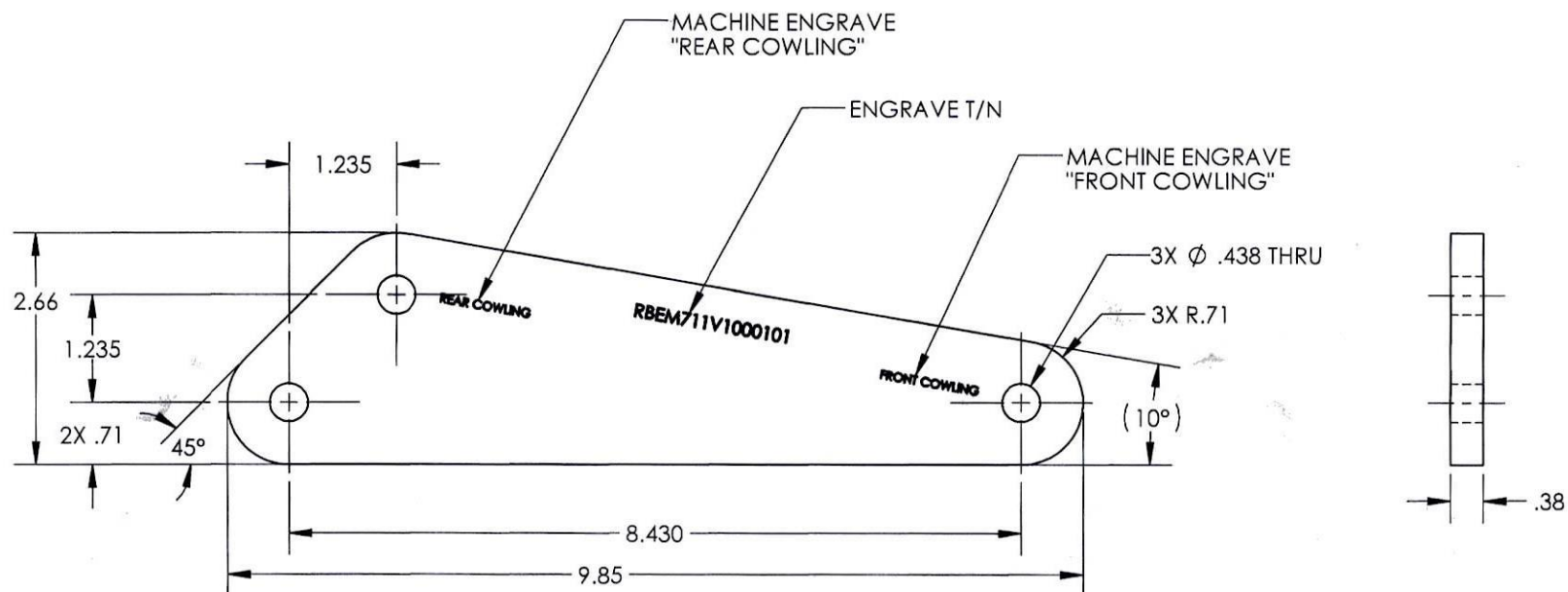
Work Order update only ☐

|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
|--------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |  | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |  | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>             Skid-tube <input type="checkbox"/><br/>             Machining <input type="checkbox"/><br/>             Thermoforming <input type="checkbox"/><br/>             Large Fab <input type="checkbox"/> </div> <div>             Cross tube <input type="checkbox"/><br/>             Small Fab <input type="checkbox"/><br/>             Finishing <input type="checkbox"/><br/>             Composite <input type="checkbox"/> </div> <div>             Water Jet <input type="checkbox"/><br/>             Prod. Eng. Coord. <input type="checkbox"/><br/>             Rec/Store/Packaging <input type="checkbox"/><br/>             Supplier <input type="checkbox"/> </div> <div>             Engineering <input type="checkbox"/><br/>             Quality <input type="checkbox"/><br/>             Other <input type="checkbox"/> </div> </div> |  |  |                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
| Date : _____                                                 |  | Step #: _____                                                                                                                                                                      |  | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  | <b>MRB (QSI042) Approval</b><br><br><div style="border: 1px solid black; height: 150px; margin: 5px;"></div> <b>Completed By</b><br><br><div style="border: 1px solid black; height: 50px; margin: 5px;"></div> <b>Lead hand / Supervisor Approval Verification</b><br><br><div style="border: 1px solid black; height: 50px; margin: 5px;"></div> <b>QC / QA Coordinator Approval</b> |  |  |
| <b>Description Work Order Deviation</b>                      |  |                                                                                                                                                                                    |  | <b>Disposition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                                                                                                                                                                                                                                        |  |  |
|                                                              |  |                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |                                                                                                                                                                                                                                                                                                                                                                                        |  |  |

| Root Cause         |                          |                       |                          | FAULT CATEGORY         |                          |                                   |                          |                       |                          |                      |                          |
|--------------------|--------------------------|-----------------------|--------------------------|------------------------|--------------------------|-----------------------------------|--------------------------|-----------------------|--------------------------|----------------------|--------------------------|
| Environment        | <input type="checkbox"/> | No Re-verification    | <input type="checkbox"/> | Pressure/Forced        | <input type="checkbox"/> | Temperature/Cure                  | <input type="checkbox"/> | Power Loss/Surge      | <input type="checkbox"/> | Positioned Wrong     | <input type="checkbox"/> |
| Design             | <input type="checkbox"/> | Operator              | <input type="checkbox"/> | Bending                | <input type="checkbox"/> | Set-up                            | <input type="checkbox"/> | Folio/Program         | <input type="checkbox"/> | Outside Dimensions   | <input type="checkbox"/> |
| Doc/Data           | <input type="checkbox"/> | Offset/Setup          | <input type="checkbox"/> | Centre Not Concentric  | <input type="checkbox"/> | BOM/Route                         | <input type="checkbox"/> | Grain                 | <input type="checkbox"/> | Over/Under tolerance | <input type="checkbox"/> |
| Equip/Tooling      | <input type="checkbox"/> | Supplier              | <input type="checkbox"/> | Cracks                 | <input type="checkbox"/> | Broken/Damage/Defect              | <input type="checkbox"/> | Weld                  | <input type="checkbox"/> | Part Incorrect       | <input type="checkbox"/> |
| Handling/Pre       | <input type="checkbox"/> | Training              | <input type="checkbox"/> | Crimp/Kink/Ripple/Wave | <input type="checkbox"/> | Inspection Incomplete/Unqualified | <input type="checkbox"/> | Wrong Stock Pulled    | <input type="checkbox"/> | Part Lost/Missing    | <input type="checkbox"/> |
| Material           | <input type="checkbox"/> | Use for Testing       | <input type="checkbox"/> | Cuffs                  | <input type="checkbox"/> | Contamination                     | <input type="checkbox"/> | Out of Sequence       | <input type="checkbox"/> | Part Moved           | <input type="checkbox"/> |
| Internal Transport | <input type="checkbox"/> | Poor Information      | <input type="checkbox"/> | Crushing               | <input type="checkbox"/> | Countersink                       | <input type="checkbox"/> | Off-set               | <input type="checkbox"/> | Drawing              | <input type="checkbox"/> |
| Tribal Knowledge   | <input type="checkbox"/> | Rushing               | <input type="checkbox"/> | Heat Treat             | <input type="checkbox"/> | Cut Too Short                     | <input type="checkbox"/> | Mislabeled            | <input type="checkbox"/> | Finish               | <input type="checkbox"/> |
| LOA                | <input type="checkbox"/> | Product Improvement   | <input type="checkbox"/> | Wave/Twist in Tube     | <input type="checkbox"/> | Instructions Incomplete/Unclear   | <input type="checkbox"/> | Fit/Function          | <input type="checkbox"/> | Misread              | <input type="checkbox"/> |
| Substation         | <input type="checkbox"/> | Process Improvement   | <input type="checkbox"/> | Marks/Chatter          | <input type="checkbox"/> | Drill Holes                       | <input type="checkbox"/> | Misaligned/off center | <input type="checkbox"/> | Turning Sequence     | <input type="checkbox"/> |
| Past Expiry Date   | <input type="checkbox"/> | Manufacturing Process | <input type="checkbox"/> | OTHER : _____          |                          |                                   |                          |                       |                          |                      |                          |
| Misidentified      | <input type="checkbox"/> | Past Due              | <input type="checkbox"/> |                        |                          |                                   |                          |                       |                          |                      |                          |

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| REVISIONS |     |             |      |          |
|-----------|-----|-------------|------|----------|
| REV       | ECR | DESCRIPTION | DATE | INITIAL  |
|           |     |             |      | APPROVED |



(-1)  
COWLING PLATE

|                                     |                                                        |
|-------------------------------------|--------------------------------------------------------|
| <b>DART<br/>AEROSPACE</b>           |                                                        |
| TITLE<br><b>COWLING SLING</b>       |                                                        |
| DWG NO.<br><b>RBEM711V1000101-1</b> | REV<br><b>2</b>                                        |
| MAT'L A36/1018/1020 HR              | UNLESS OTHERWISE SPECIFIED<br>DIMENSIONS ARE IN INCHES |
| HEAT TREAT                          | .XXX ± .010 FRACTIONS ± 1/8                            |
| FINISH ZINC PLATE                   | .XX ± .03 ANGLES ± 1°                                  |
| SPEC ASTM B633 TYPE I SC 2          | .X ± .1 SURFACES = 125/                                |
| DRAWN BY: MACKOVJAK                 | 1. BREAK ALL SHARP EDGES<br>.015 x 45° OR .015R        |
| CHECKED: DUERFELDT                  | 2. DIMENSIONAL LIMITS APPLY<br>AFTER PLATING           |
| OPPS APPR: ANDERSON                 | 3. INTERPRET DIM AND TOL PER<br>ASME Y14.5M-2009       |
| QA APPR: LINDSAY                    | USED ON MODEL                                          |
| APPROVED: GILBERT                   | AIRBUS H175                                            |
| SCALE 1:2                           | DATE 12/14/2015                                        |
| SHEET 2 OF 4                        |                                                        |





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO039549**

**Supplier:** GRO002-VC  
Group Altech  
2455 Halpern  
St Laurent  
QC  
H4S 1N9 Canada  
Phone: 514-335-3666  
Fax: 514-335-3868

**PO No:** PO039549  
**PO Date:** 4/9/18  
**Due Date:** 4/23/18  
**Purchase Order Revision:**  
**Revision Date:**  
**Ship-To Contact:** Tsimiklis, ChrisoulaPhone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

| Items     |        |                     |                                                                                                                                                                                                                                                                                         |        |          |                |                   |         |                              |                |
|-----------|--------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------|----------------|-------------------|---------|------------------------------|----------------|
| Line Item | Job    | Part                | Description                                                                                                                                                                                                                                                                             | Status | Due Date | Order Quantity | Received Quantity | Balance | Unit Price (CAD)             | Extended Price |
| 1         | 172434 | 269T9205-5          | Stop<br>-Issue P/O to Groupe Altech; PO _____<br>-Black oxide finish, MIL-C-13924C Class 1<br>-Apply thin layer of oil/CPC per MIL-PRF-16173 Grade 3 Class 1 or MIL-c-81309 Type III<br>Or MILL-C23411A or MIL-PRF-81309 and wipe off excess.<br>-Certificate of Conformity is required | Firmed | 4/23/18  | 4 pcs          | 0 pcs<br>✓ 4x     | 4 pcs   | \$3.42857/pcs<br>AT 18604/12 | \$13.71        |
| 2         | 172907 | RBE350A93-5300-00-1 | Fan Extractor<br>-Issue P/O to Groupe Altech; P/O _____<br>-Cadmium plating, QQ-P-416F TYPE II, CLASS II<br>-Color; Yellow<br>-Certificate of Conformity is required                                                                                                                    | Firmed | 4/23/18  | 2 pcs          | 0 pcs<br>✓ 2x     | 2 pcs   | \$87.50/pcs<br>AT 18604/18   | \$175.00       |
| 3         | 173775 | RBEM711V1000101-1   | Cowling Plate<br>-Issue P/O to Groupe Altech; P/O _____<br>-Zinc plate, ASTM B633 TYPE 1 SC2<br>-Certificate of Conformity is required                                                                                                                                                  | Firmed | 4/23/18  | 4 pcs          | 0 pcs<br>✓ 4x     | 4 pcs   | \$22.50/pcs<br>AT 18604/18   | \$90.00        |

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# Certificat de Conformité / Certificate of Compliance

(008271-2)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9  
 Tel: 514-335-3666 Fax: 514-335-3868  
 www.groupaltech.com

## Bon de Livraison / Packing Slip

### 008271 - 2

Livré à / Ship to

**DART AEROSPACE LTD**  
 1270 ABERDEEN STREET  
 HAWKESBURY, ON, K6A1K7  
 CANADA  
 Tel.: 613-632-5200 Fax.:

Client / Customer:

**DART AEROSPACE LTD**  
 1270 ABERDEEN STREET  
 HAWKESBURY, ON, K6A1K7  
 CANADA  
 BUYER:

| Date expédition<br>Ship date |                                                                            | Créé Par<br>Generated By                                                                           | Transport / No de Compte<br>Courier / Acc. No. | Bon de commande Client<br>Customer Purchase Order No. |                 |                   |               |                        |
|------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------|-----------------|-------------------|---------------|------------------------|
| 17-Apr-2018                  |                                                                            | Aman                                                                                               |                                                | 039549                                                |                 |                   |               |                        |
| #Ligne<br>Line#              | No. de Série / # Pièce<br>Part Number / Line Item Details<br>Job # / Ref # | Description pièce(s)                                                                               | CATG.<br>U/M                                   | Comm.<br>/Ordered                                     | Exp/<br>Shipped | Qté NC/<br>NC Qty | Qté<br>Scrap/ | À venir/<br>Back Order |
| 2                            | RBE350A93-5300-00-1<br>Rev.                                                | RBE350A93-5300-00-1<br>01 -CAD YELLOW 500 [CADMIUM YELLOW 500]<br>QQ-P-416F TYPE 2 CLASS 2<br>BAKE | CADMIUM<br>CH                                  | 2                                                     | 2               | 0                 | 0             | 0                      |
| 3                            | RBEM711V1000101-1<br>Rev.                                                  | RBEM711V1000101-1<br>ZINC PLATE ASTM B633 TYPE I SC2                                               | ZINC<br>CH                                     | 4                                                     | 4               | 0                 | 0             | 0                      |

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### Notes Additionnelles / Additional Notes

Epaisseur réelle  
Actual Thickness

Inspecteur Qualité  
Quality Inspector

Réçu par  
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.  
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.  
 Our financial and legal responsibility will not be higher than the amount of invoice.